

## **ABSTRACT OF THE DISCLOSURE**

A surface crosslinking treatment method of a water-absorbing resin powder is disclosed that can overcome various problems in production encountered in the production of surface crosslinked water-absorbing resin powders on an industrial scale and can produce a water-absorbing resin powder having excellent physical properties without causing deterioration in physical properties of resin. The surface crosslinking treatment method of a water-absorbing resin powder includes adding a surface crosslinking agent to a water-absorbing resin powder and heat treating the mixture, wherein (1) the water-absorbing resin powder after the heat treatment is stirred and cooled under an air flow; (2) the water-absorbing resin powder after the heat treatment is cooled under an air flow, and at the same time, at least a part of fine particles of the water-absorbing resin powder and/or the residual crosslinking agent is removed by the air flow; or (3) the water-absorbing resin powder after the heat treatment is cooled and simultaneously granulated, and preferably an aqueous solution is added to the water-absorbing resin powder at a temperature of 40-100°C during the cooling treatment.